UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/731,655	KARIMISETTY ET AL.
	Examiner	Art Unit	
	Jacob F. Bétit	2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>26 March 2010</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-19 and 21-26</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) <u>26</u> is/are allowed.

6) ☒ Claim(s) <u>1-19 and 21-25</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 26 March 2010 has been entered.

Remarks

2.   In response to communications filed on 26 March 2010, claims 1, 12, 19, and 26 have

been amended and claim 20 has been cancelled per the applicant's request. Claims 1-19 and 21-

26 are presently pending in the application.

3.   It is noted that in the remarks section, Applicant has indicated that claim 12 has been both

cancelled and amended. Since claim 12 is listed as currently amended in the listing of claims,

Examiner will disregard remarks directed to claim 12 being cancelled.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 1-3, 7, 9-14, 18-21, 25 rejected under 35 U.S.C. 103(a) as being unpatentable

over Mathieson, "Implementing Oracle Workflow", (2000) in view of Lee et al. (2004/0186860

A1).

        As to claim 1, Mathieson teaches a computer-implemented method of committing a

transaction to a database, the method comprising:

        receiving, at one or more computer systems, information defining an occurrence in one or

more database applications [of] a business event that, upon occurrence, causes a database

management system to intercept database transactions before the database transactions are

committed to databases provided by the database management system, the database transactions

representative of the business event and instantiated between the one or more database

applications and the database management system (see Figure 1, "Creating a Purchase Order",

and see Figure 3 "Start);

        receiving, at the one or more computer systems, an electronic record definition defining

one or more fields to include in electronic records automatically generated from data in the

database transactions representative of the business event, the electronic record definition

requiring the electronic records to have at least one electronic signature (see figure 1, various

fields are displayed that are stored in the database as part of the workflow);

        detecting, at the one or more computer systems, a database transaction between a

database application and the database management system (see Figure 1);

        determining, at the one or more computer systems, that the database transaction satisfies

an occurrence condition of the business event and intercepting transaction data from the database

transaction with the one or more computer systems prior to the database management system

committing the database transaction to a database of the database management system (see pages 9-10);

creating an electronic record at the one or more computer systems from the intercepted transaction data prior to the database management system committing the database transaction to the database (see figure 11 and figure 12);

storing, in a storage device associated with the one or more computer systems, the electronic record separately from the transaction data from the database transaction (see page 9 and 10, the status is maintained separately from the document);

executing a rule associated with the business event at the one or more computer systems to determine whether an electronic signature is required to connote review of the electronic record created from the intercepted transaction data in order for the database management system to commit the database transaction to the database (see pages 2-3);

requesting the electronic signature using the one or more computer systems prior to the database management system committing the database transaction to the database based on a determination that an electronic signature is required (see pages2-3); and

committing the database transaction to the database using the one or more computer systems in response to receiving the electronic signature (see figure 3).

Mathieson does not distinctly disclose receiving, at the one or more computer systems, information that maps data from underlying database tables associated with the database transaction to at least some of the one or more fields defined in the electronic record definition; storing, in a storage device associated with the one or more computer systems, the electronic record definition in association with the business event based on the information that maps data

from the underlying database tables associated with the database transactions to at least some of

the one or more fields defined in the electronic record definition; and creating a record according

to the electronic record definition associated with the business event in the information that maps

data from underlying database tables associated with the database transactions to the at least

some of the one or more fields defined in the electronic record definition.

However, Lee et al. teaches this, see paragraphs 0042-44. Therefore, it would have been

obvious to one having ordinary skill in the art at the time the invention was made to have

modified Mathieson to include the teachings of Lee et al. because these teachings would allow

for the data from the record to be stored into database tables making it so that data stored is

easier accessed and stored in a smaller space than if each form was stored as its own document.

As to claim 2, Mathieson teaches wherein the electronic record comprises data generated

from multiple tables of the database (see Figure 1, information of pull down menus from

different tables and see pages 6-7, "Interface to CERN Databases").

As to claim 3, Mathieson teaches wherein the electronic record is stored in a common

repository of electronic records that provides an audit trail that cannot be altered or disabled by

users of the database (see Figures 11 and 12).

As to claim 7, Mathieson teaches further displaying at least some of the transaction data

in the electronic record on a computer display based on the determination that an electronic

signature is required (see page 1, "web-based interface").

As to claim 9, Mathieson teaches further comprising obtaining and verifying the electronic signature (see page 2, "authorization password").

As to claim 10, Mathieson teaches wherein the rule requires a plurality of different electronic signatures and wherein, if execution of the rule results in a determination that a plurality of electronic signatures are required, requesting the plurality of electronic signatures prior to committing the data to the database (see page 3, "at least one signature to authorize payment").

As to claim 11, Mathieson teaches wherein, if the electronic signature is rejected or otherwise cannot be obtained, the database transaction is rolled-back and not committed to the database (see Figure 3, "End (Rejected)").

As to claim 12, Mathieson teaches a computer system that manages electronic records stored in a database, the computer system comprising: a processor (see page 1); and

a computer-readable memory coupled to the processor, the computer-readable memory storing a set of instructions (see page 1) executable by the processor to:

receive information defining an occurrence in one or more database applications as a business event that, upon occurrence, causes a database management system to

intercept database transactions before the database transactions are committed to

databases provided by the database management system, the database transactions

representative of the business event and instantiated between the one or more database

applications and the database management system (see pages 9-10);

receive an electronic record definition defining one or more fields to include in

electronic records automatically generated from the data in the database transactions

representative of the business event, the electronic record definition requiring the

electronic records to have at least one electronic signature (see figure 1, various fields are

displayed that are stored in the database as part of the workflow);

detect a database transaction between a database application and the database

management system (see figure 1);

determine that the database transaction satisfies an occurrence condition of the

business event and intercept transaction data from the database transaction initiated

between the one or more database applications and the database management system

prior to the database management system committing the database transaction to a

database of the database management system (see pages 9-10);

create an electronic record from the intercepted transaction data prior to the

database management system committing the database transaction to the database (see

figures 11 and 12);

store the electronic record separately from the transaction data from the database

transaction (see page 9 and 10, the status is maintained separately from the document);

execute a rule associated with the business event to determine whether an

electronic signature is required to connote review of the electronic record created from

the intercepted transaction data in order for the database management system to commit

the database transaction to the database (se pages 2-3); and

request the electronic signature prior to the database management system

committing the database transaction to the database based on a determination that an

electronic signature is required (see pages 2-3); and

commit the database transaction to the database in response to receiving the

electronic signature (see figure 3).

Mathieson does not distinctly disclose receiving information that maps data from

underlying database tables associated with the database transaction to at least some of the one or

more fields defined in the electronic record definition; store the electronic record definition in

association with the business event based on the information that maps data from the underlying

database tables associated with the database transactions to at least some of the one or more

fields defined in the electronic record definition; and create a record according to the electronic

record definition associated with the business event in the information that maps data from

underlying database tables associated with the database transactions to the at least some of the

one or more fields defined in the electronic record definition.

However, Lee et al. teaches this, see paragraphs 0042-44. Therefore, it would have been

obvious to one having ordinary skill in the art at the time the invention was made to have

modified Mathieson to include the teachings of Lee et al. because these teachings would allow

for the data from the record to be stored into database tables making it so that data stored is

easier accessed and stored in a smaller space than if each form was stored as its own document.

As to claim 13, the applicant is directed to the citations for claim 2 above.

As to claim 14, the applicant is directed to the citations for claim 3 above.

As to claim 18, the applicant is directed to the citations for claim 9 above.

As to claim 19, Mathieson teaches a computer-readable storage medium configured to

store computer-executable code for managing electronic records stored in a database, the

computer-readable storage medium comprising:

code [that receives] information defining an occurrence in one or more database

applications as a business event that, upon occurrence, causes a database management system to

intercept database transactions before the database transactions are committed to databases

provided by the database management system, the database transactions representative of the

business event and instantiated between the one or more database applications and the database

management system (see figure 1, "creating a Purchase Order", and see figure 3 "Start");

code [that receives] an electronic record definition defining one or more fields to include

in electronic records automatically generated from data in the database transactions

representative of the business event, the electronic record definition requiring the electronic

records to have at least one electronic signature (see figure 1);

code [that detects] a database transaction between database application and the database

management system (see figure 1);

code [that determines] that the database transaction satisfies an occurrence condition of

the business event in response to monitoring for the business event (see figure 12);

code [that intercepts] transaction data from the database transaction initiated between the

one or more database applications and the database management system prior to the database

management system committing the transaction to a database of the database management

system (see pages 9-10);

code [that creates] an electronic record from the intercepted transaction data prior to the

database management system committing the database transaction to the database (see figures 11

and 12);

code [that stores] the electronic records separately from the transaction data from the

database transaction (see page 9 and 10, the status is maintained separately from the document);

code [that executes] a rule associated with the event to determine whether an electronic

signature is required to connote review of the electronic record created from the intercepted

database transaction in order for the database management system to commit the database

transaction to the database (see pages 2-3); and

code [that requests] the electronic signature prior to the database management system

committing the database transaction to the database based on a determination that that an

electronic signature is required (see pages 2-3); and

code [that commits] the database transaction to the database in response to receiving the

electronic signature. (see figure 3).

Mathieson does not distinctly disclose code [that receives] information that maps data

from underlying database tables associated with the database transactions to at least some of the

one or more fields defined in the electronic record definition; code for storing the electronic

record definition in association with the business event based on the information that maps data

from the underlying database tables associated with the database transactions to at least some of

the one or more fields defined in the electronic record definition; and code for creating a record

according to the electronic record definition associated with the business event and the

information that maps data from underlying database tables associated with the database

transactions to the at least some of the one or more fields defined in the electronic record

definition.

However, Lee et al. teaches this, see paragraphs 0042-44. Therefore, it would have been

obvious to one having ordinary skill in the art at the time the invention was made to have

modified Mathieson to include the teachings of Lee et al. because these teachings would allow

for the data from the record to be stored into database tables making it so that data stored is

easier accessed and stored in a smaller space than if each form was stored as its own document.

As to claim 20, Mathieson teaches wherein the code for creating an electronic record

further comprises code for creating electronic records in response to the occurrence of a

predefined event (see Figure 11 and Figure 12, which display records of status information of

documents).

As to claim 21, the applicant is directed to the citations for claim 3 above.

As to claim 25, the applicant is directed to the citations for claim 9 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claims 4-6, 15-17, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Mathieson in view of Lee et al. as applied to claims 1-3, 7, 9-14, 18-21, 25 above, and in

further view of Bisbee et al. (U.S. patent application publication No. 2001/0002485 A1) and

Bertino et al., "Integrating XML and Databases".

Claims 4 and 5 are rejected for the following reasons:

Mathieson fails to expressly disclose the use of XML Documents.

Bisbee et al. teaches the objects being stored as XML documents, see paragraph 0071.

Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to

use XML as a well-known standard which provides the advantage of being easily supported.

However, it is not expressly stated in the above mentioned references how the data is

stored within the database. Bertino et al. teaches the storage of an unstructured XML document

as a column of a table as a CLOB data type, see page 86 column 1. Thus, it would have been

obvious to one of ordinary skill in the art at the time of the invention to include these features as

it provides an organized method for storing the xml documents.

Also note, Mathieson teaches using "Oracle Workflow", and the document "Oracle

Workflow Release 2.6.2 Business Event System and PL/SQL Development Guidelines" teaches

that Oracle Workflow typically uses XML documents as see on page 15.

As to claim 6, Mathieson as modified, teaches wherein XML fields of the data are filled

with the transaction data based on a predefined mapping of a data type definition to multiple data

sources (see Bisbee et al. and Bertino et al. as cited above, where data in XML files is implicitly

formatted using the mapping of a DTD, as the DTD defines how data is mapped and related in an

XML file).

As to claim 15, the applicant is directed to the citations for claim 4 above.

As to claim 16, the applicant is directed to the citations for claim 5 above.

As to claim 17, the applicant is directed to the citations for claim 6 above.

As to claim 22, the applicant is directed to the citations for claim 4 above.

As to claim 23, the applicant is directed to the citations for claim 5 above.

As to claim 24, the applicant is directed to the citations for claim 6 above.

7.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieson in view

of Lee et al. as applied to claims 1-3, 7, 9-14, 18-21, 25 above, and in further view of Bisbee et

al. and the applicant's admitted prior art (see MPEP §2144.03 C., the applicant's failure to

traverse the examiner's assertions in the previous office action are taken to be an admittance of

prior art).

As to claim 8, Mathieson does not distinctly disclose wherein the transaction data in the

electronic record is displayed according to a predefined layout set forth in an XSL style sheet

associated with data comprising a copy of the electronic record as displayed, wherein the data is

stored within a column of a database table.

Bisbee et al. teaches XML for formatting the data and having data that contains copies

(see paragraph 0100). Thus it would have been obvious to one of ordinary skill in the art at the

time of the invention to use XML as a well-known standard which provides the advantage of

being easily supported.

However, Mathieson as modified by Bisbee et al. still fails to expressly disclose how the

data is presented to the user, and the data being stored in tables.

The applicant has admitted that use of XSL to provide a layout for displaying XML

documents and the ability to store data in tables was well known in the art at the time of the

invention. Thus it would have been obvious to one having ordinary skill in the art at the time of

the invention to have modified Mathieson to include these things because XSL is the standard

language for determining XML document presentation and storing data in tables is makes

retrieval efficient.

Allowable Subject Matter

8.   Claim 26 is allowed.

Response to Arguments

9.   Applicant's arguments filed 26 March 2010 have been fully considered but they are not

persuasive.

In response to Applicant's arguments that the combination of references does not disclose

"receiving, at one or more computer systems, information defining an occurrence in one or more

database applications as a business event that, upon occurrence, causes a database management

system to intercept database transactions before the database transactions are committed to

databases provided by the database management system," the arguments have been fully

considered, but are not deemed persuasive. Applicant feels that there is a difference between

defining how a document should flow through a workflow before it is committed and defining an

occurrence of a business event in a database application that causes a system to intercept the

transaction before it is committed to databases provided by a database management system. The

event that is defined is the start of the workflow with the creation of a document. Different

documents are defined that result in different workflows. Mathieson indicates that different

paths are chosen depending on the type of document, who created, and whose money is being

spent. Indicating this information would be a defined business event that occurs in a database

application (Oracle Workflow). The application prevents the event from being committed to the

database (approved) until authorized individuals approve the document. Therefore, this

limitation is taught by Matheson.

In response to Applicant's arguments that Mathieson does not disclose "receiving, at one

or more computer systems, an electronic record definition defining one or more fields to include

in electronic records automatically generated from data in the database transactions representative of the business event," the arguments have been fully considered, but are not deemed persuasive. The document that is being approved is representative of the business event. This document includes fields that are defined as part of the document and must be filled out by the user. The claim requires that one or more fields are defined to include in the electronic records. These fields are automatically created every time a new instance of a document is created to represent a new business event. The claim does not require auto population of the fields that are representative of the business event. Therefore Mathieson does teach this limitation.

In response to Applicant's arguments that Mathieson does not teach "creating an electronic record at the one or more computer systems from the intercepted transaction data prior to the database management system committing the database transaction to the database according to the electronic record definition associated with the business event and the information that maps data from underlying database tables associated with the database transaction to the at least some of the one or more fields defined in the electronic record definition," the arguments have been fully considered, but are not deemed persuasive.

It is first noted that the applicant has indicated that Mathieson does not disclose all of these features. This appears to be an attack on the individual reference when Lee is also used to teach mapping data from an underlying table to a record in a database. One cannot show nonobviousness by attacking references individually where the rejections are based on

combinations of references. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re

Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Mathieson teaches creating a record of the document status (electronic record) including

information from the document fields (person approving the document). This information is

recorded before the final approval is committed and the workflow is completed. As indicated in

the rejection, Mathieson is silent as to how this information is stored (if it is stored in an

underlying table). However, Lee teaches storing the information in a table and mapping the

information from the form to the table. Therefore, the combination of reference teaches this

limitation.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jacob F. Bétit whose telephone number is (571)272-4075. The

examiner can normally be reached on Monday through Friday 9:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

/Jacob F Bétit/
Primary Examiner, Art Unit 2169

jfb
13 March 2011